

WINDINGS FOR ELECTRIC MACHINES

Abstract

A stator core extends along a longitudinal axis and includes a plurality of radially-inwardly projecting teeth separated by intervening slots. Each tooth includes a tooth tip at the radially innermost portion of each tooth, thereby defining a slot opening. A wave-shaped conductor segment including a pair of segment ends having a first cross-section shape, a plurality of straight portions having a second cross-section shape and having a plurality of end-turn regions with a third cross-section shape disposed in between the straight portions in an alternating pattern is radially inserted into the stator core. After the conductor segment is inserted, the tooth tips are deformed so as to reduce the size of the slot opening, thereby providing for an improved magnetic flux path and slot fill percentage, as well as reduced cost and complexity without decreasing reliability.

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